

cell to detoxify the compound is indicative of activity of p-glycoproteins. A bacterial cell line was transformed with an expression vector comprising ATPAC. The growth rate of transformed and non-transformed cells was then measured, in the presence or absence of Rhodamine 6G. Results are shown in Figure 5. As can be seen, ATPAC-expressing cells grown in the absence of the drug had the best growth rate. Moreover, even in the presence of the drug, the cells grew more quickly than non-transformed cells in the presence or absence of Rhodamine 6G. These results demonstrate that ATPAC encodes a functional and robust p-glycoprotein.

In the claims:

Please cancel claim 27.

Please amend the claims as follows:

1. (Amended) An isolated nucleic acid, which has the restriction endonuclease cleavage sites shown in Figure 7 for one or more restriction endonucleases, and which encodes a plant p-glycoprotein that is inducible by exposure of a plant to 5-nitro-2-(3-phenylpropylamino) benzoic acid (NPPB).

2. (Amended) The isolated nucleic acid of claim 1, which is expressed in plant roots upon exposure of the plant to NPPB.

napus or *Arabidopsis thaliana* and wherein the nucleic acid is 3850-4150 nucleotides long.

4. (Amended) The isolated nucleic acid of claim 1, which has the restriction endonuclease cleavage sites shown in Figure 7 for at least three restriction endonucleases.

6. (Amended) The isolated nucleic acid of claim 1, wherein the nucleic acid is a DNA comprising a coding region of SEQ ID NO:1 or SEQ ID NO:10.

9. (Amended) An expression cassette, which comprises a coding sequence of a pIPAC gene operably linked to a promoter.

11. (Amended) The expression cassette of claim 10, wherein the promoter is the cauliflower mosaic virus 35S promoter.

12. (Amended) The expression cassette of claim 10, wherein the pIPAC gene is part or all of SEQ ID NO:1 or SEQ ID NO:10.

17. (Amended) A transgenic plant comprising the expression cassette of claim 9 wherein the plant has enhanced resistance to xenobiotic compounds.

18. (Amended) A seed from the transgenic plant of claim 17, said seed comprising the expression cassette.

expression cassette.

20. (Amended) A recombinant DNA molecule comprising the nucleic acid of claim 1, inserted in a vector for transforming cells.

23. (Amended) A transgenic plant regenerated from the transformed plant cell of claim 22.

24. (Amended) An isolated nucleic acid having a sequence selected from the group consisting of:

- a) SEQ ID NO:1 or SEQ ID NO:10;
- b) a nucleic acid sequence that is at least about 60% identical to the coding regions of SEQ ID NO:1 or SEQ ID NO:10;
- c) a nucleic acid sequence encoding a p-glycoprotein and hybridizing with SEQ ID NO:1 or SEQ ID NO:10 under conditions comprising hybridization in 6X SSC, 5X Denhardt's solution, 0.5% SDS and 100 µg/ml denatured salmon sperm DNA at 42 C and washing in 2X SSC and 0.5% SDS at 55 C for 15 minutes;
- d) a nucleic acid sequence encoding a polypeptide having SEQ ID NO:2;
- e) a nucleic acid sequence encoding an amino acid sequence that is at least about 70% identical to SEQ ID NO:2;
- f) a nucleic acid sequence encoding an amino acid sequence that is at least about 80% similar to SEQ ID NO:2;

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ID NO:2; and

h) a nucleic acid sequence encoding a p-glycoprotein and hybridizing to a sequence encoding residues 1-76, 613-669 or 1144-1161 of SEQ ID NO:2 under conditions comprising hybridization in 6X SSC, 5X Denhardt's solution, 0.5% SDS and 100 µg/ml denatured salmon sperm DNA at 42 C and washing in 2X SSC and 0.5% SDS at 55 C for 15 minutes.

28. (Amended) A recombinant DNA molecule comprising the nucleic acid of claim 24, inserted in a vector for transforming cells.

31. (Amended) A transgenic plant regenerated from the plant cell of claim 30.